

CLAIM AMENDMENTS

Claim 1 (currently amended):

A miter saw comprising:

a base assembly defining a cutting zone and configured to support a workpiece in the cutting zone;

a pivot arm assembly coupled to the base assembly and selectively pivotable toward and away from the cutting zone, where the pivot arm assembly includes a first housing, an arm extending between the base assembly and the first housing, a second housing, and at least one link interconnecting the base assembly and the second housing, where the pivot arm assembly is configured so that the second housing pivots relative to the first housing in a direction counter to the pivoting of the pivot arm assembly;

a rotatable arbor supported by the pivot arm assembly, where the arbor has an axis of rotation and where that axis of rotation is the axis around which the second housing pivots;

a rotatable blade supported by the arbor and positioned at least partially within the first housing and configured to cut workpieces supported within the cutting zone, where the blade has an angular momentum when rotated;

a detection system configured to detect a dangerous condition between a person and the blade; and

a braking system supported by located on the second housing and actuatable to decelerate the blade upon detection by the detection system of the dangerous condition, where the braking system is configured to transfer at least a fraction of the angular momentum of the blade to the pivot arm assembly; and where the pivot arm assembly is further configured to use that angular momentum to urge the blade away from the cutting zone.

Claims 2-3 (canceled).

Claim 4 (withdrawn and amended):

The miter saw of claim 2 1, where the second portion of the housing assembly is configured to pivot at least partially within the first portion of the housing assembly.

Claim 5 (currently amended):

A miter saw comprising:

a base assembly defining a cutting zone and configured to support a workpiece in the cutting zone;

a pivot arm assembly coupled to the base assembly and selectively pivotable toward and away from the cutting zone, where the pivot arm assembly includes a first housing, an arm extending between the base assembly and the first housing, a second housing, and at least one link interconnecting the base assembly and the second housing, where the pivot arm assembly is configured so that the second housing pivots

relative to the first housing in a direction counter to the pivoting of the pivot arm assembly;

a rotatable arbor supported by the pivot arm assembly, where the arbor has an axis of rotation and where that axis of rotation is the axis around which the second housing pivots;

a rotatable blade supported by the arbor and positioned at least partially within the first housing and configured to cut workpieces supported within the cutting zone, where the blade has an angular momentum when rotated;

a detection system configured to detect a dangerous condition between a person and the blade; and

a braking system supported by the second housing and actuatable to decelerate the blade upon detection by the detection system of the dangerous condition, where the braking system is configured to transfer at least a fraction of the angular momentum of the blade to the pivot arm assembly; and where the pivot arm assembly is further configured to use that angular momentum to urge the blade away from the cutting zone;

The miter saw of claim 1, where the braking system includes a cartridge removably mounted on the second housing, and where the cartridge includes a braking member configured to engage the blade.

Claim 6 (canceled).

Claim 7 (previously amended):

The miter saw of claim 5, where the second housing includes an exterior surface, and where the cartridge forms at least part of the exterior surface of the second housing when the cartridge is mounted on the second housing.

Claims 8-19 (canceled).**Claim 20 (currently amended):**

A miter saw comprising:

a base assembly defining a cutting zone and configured to support a workpiece in the cutting zone;

a housing assembly coupled to the base assembly and selectively pivotable toward and away from the cutting zone, where the housing assembly includes first and second portions with an arm extending between the base assembly and the first portion and a link assembly interconnecting the base assembly and the second portion, where the second portion is pivotally connected to the first portion, and where the second portion is configured to pivot in a direction counter to the pivoting of the housing assembly;

a rotatable arbor supported by the housing assembly, where the arbor has an axis of rotation and where that axis of rotation is the axis around which the second portion of the housing assembly pivots;

a rotatable blade configured to cut a workpiece supported within the cutting zone, where the blade is supported at least partially within the housing assembly, and where the blade has angular momentum when rotating; and

braking means located on the second portion for stopping rotation of the blade upon the occurrence of one or more dangerous conditions and for transferring at least a fraction of the angular momentum of the blade to the housing assembly.

Claim 21 (new):

The miter saw of claim 1, where the first housing includes an opening through which the link interconnecting the base assembly and the second housing passes.

Claim 22 (new):

The miter saw of claim 1, further comprising at least two links interconnecting the base assembly and the second housing.

Claim 23 (new):

The miter saw of claim 22, where the first housing includes two openings through which the two links interconnecting the base assembly and the second housing pass.

Claim 24 (new):

The miter saw of claim 22, where the two links are connected to different sides of the second housing.

Claim 25 (new):

The miter saw of claim 1, where the link is pivotally connected to the base assembly at a pivot point above the connection between the arm and the base assembly.

Claim 26 (new):

The miter saw of claim 25, where the height of the pivot point above the connection between the arm and the base assembly is selected so that when the braking system decelerates the blade, the blade is urged away from the cutting zone with sufficient force to stop the normal downward motion of the pivot arm.

Claim 27 (new):

The miter saw of claim 5, where the braking member is positioned adjacent the cutting edge of the blade.

Claim 28 (new):

The miter saw of claim 5, where the second housing is configured to pivot at least partially within the first housing.

Claim 29 (new):

The miter saw of claim 5, where the first housing includes an opening through which the link interconnecting the base assembly and the second housing passes.

Claim 30 (new):

The miter saw of claim 5, further comprising at least two links interconnecting the base assembly and the second housing.

Claim 31 (new):

The miter saw of claim 30, where the first housing includes two openings through which the two links interconnecting the base assembly and the second housing pass.

Claim 32 (new):

The miter saw of claim 31, where the two links are connected to different sides of the second housing.

Claim 33 (new):

The miter saw of claim 5, where the link is pivotally connected to the base assembly at a pivot point above the connection between the arm and the base assembly.

Claim 34 (new):

The miter saw of claim 33, where the height of the pivot point above the connection between the arm and the base assembly is selected so that when the braking system decelerates the blade, the blade is urged away from the cutting zone with sufficient force to stop the normal downward motion of the pivot arm.

Claim 35 (new):

The miter saw of claim 20, where the second portion is configured to pivot at least partially within the first portion.